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claim amendments and additions.

)·

placing the claims in a format appropriate for U.S. prosecution. Applicants submit that the amendments do not change the scope of the claims as originally filed. Such amendments are therefore made to address formalities in the claim format and are not related to the

Conclusion

patentability of the subject matter of the claims. No new matter was added by way of these

Applicants believe that the subject matter of the pending claims is patentable and that the instant application should accordingly be allowed. If the Examiner believes that a conversation with Applicants' attorney would be helpful in expediting prosecution of this application, the Examiner is invited to call the undersigned attorney at (203) 812-6450.

Respectfully submitted,

Dated: March 12, 2002

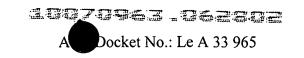
Bayer Corporation 400 Morgan Lane West Haven, CT 06516 (Tel) (203) 812-6450 (Fax) (203) 812-6459

e-mail: susan.pellegrino.b@bayer.com

Susan M. Pellegrino Attorney for Applicants

Reg. No. 48,972

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Amended Claims (Attorney Docket No. Le A 33 965) Version with Markings to Show Changes to Claims

- 1. A combination preparation, comprising as pharmaceutically active ingredients at least one active compound component A and at least one active compound component B, characterized in that the active compound component A is a PDE inhibitor, [preferably a cGMP PDE inhibitor,] and the active compound component B is an antilipemic.
- 2. Cancelled.
- 3. Cancelled.
- 4. Cancelled.
- 5. (Amended) The combination preparation as claimed in [any of] claim[s] 1 [to 4], characterized in that the active compound components A and B are present as a functional unit, in particular in the form of a mixture, a mix or a blend.
- 6. (Amended) The combination preparation as claimed in [any of] claim[s] 1 [to 4], characterized in that the active compound components A and B are (spatially) separated, in particular as a kit-of-parts.
- 7. (Amended) The combination preparation as claimed in [any of] claim[s] 1 [to 6], characterized in that the antilipemic (active compound component B) is selected from the group consisting of (a) HMG-CoA-reductase inhibitors; (b) squalene synthase inhibitors; (c) bile acid sequestrants; (d) fibric acid and its derivatives; (e) nicotinic acid and its analogs; (f) ω3-fatty acids.
- 8. (Amended) The combination preparation as claimed in claim 7, characterized in that the antilipemic (active compound component B) is an HMG-CoA-reductase inhibitor

[and is in particular selected from the group of the statins, preferably from the group consisting of atorvastatin, cerivastatin, fluvastatin, lovastatin, pravastatin, itavastatin, simvastatin and (+)-(3R,5S)-bis-(7-(4-(4-fluorophenyl)-6-isopropyl-2-(N-methyl-N-methanesulfonylamino)-pyrimidin-5-yl)-3,5-dihydroxy-6(E)-heptenoic acid, and their respective salts, hydrates, alkoxides, esters and tautomers].

11. (Amended) The combination preparation as claimed in [any of] claim[s] 1 [to 10], characterized in that the PDE inhibitor (active compound component A) is a cGMP PDE inhibitor and is [in particular] selected from the group consisting of pyrazolopyrimidones of the general formula below

in which

R¹ represents hydrogen; C₁-C₃-alkyl; C₁-C₃-perfluoroalkyl; or C₃-C₅-cycloalkyl;

R² denotes hydrogen; C₁-C₆-alkyl, optionally substituted by C₃-C₆-cycloalkyl; C₁-C₃-perfluoroalkyl; or C₃-C₆-cycloalkyl;

R³ is C₁-C₆-alkyl, optionally substituted by C₃-C₆-cycloalkyl; C₁-C₆-perfluoroalkyl, C₃-C₅-cycloalkyl; C₃-C₆alkenyl; or C₃-C₆-alkinyl;

represents C₁-C₄-alkyl, optionally substituted by OH, NR⁵R⁶, CN, CONR⁵R⁶ or CO₂R⁷; C₂-C₄-alkenyl, optionally substituted by CN, CONR⁵R⁶ or CO₂R⁷; C₂-C₄-alkanoyl, optionally substituted by NR⁵R⁶; (hydroxy)-C₂-C₄-alkyl, optionally substituted by NR⁵R⁶, (C₂-C₃-alkoxy)-C₁-C₂-alkyl, optionally substituted by OH or NR⁵R⁶, CO₂R⁷; halogen; NR⁵R⁶, NHSO₂NR⁵R⁶; NHSO₂NR⁵R⁶; NHSO₂NR⁹R¹⁰; or phenyl, pyridyl, pyrimidinyl, imidazolyl, oxazolyl, thiazolyl, thienyl or triazolyl, each of which is optionally substituted by methyl;

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- R⁵ and R⁶ each independently of one another denote hydrogen or C₁-C₄-alkyl; or together with the nitrogen atom to which they are attached form a pyrrolidinyl, piperidino, morpholino, 4-N(R¹¹)-piperazinyl or imidazolyl group, where this group is optionally substituted by methyl or OH;
- R^7 is hydrogen or C_1 - C_4 -alkyl;
- R⁸ represents C₁-C₃-alkyl, optionally substituted by NR⁵R⁶;
- R^9 and R^{10} together with the nitrogen atom to which they are attached form a pyrrolidinyl, piperidino, morpholino, 4-N(R^{12})-piperazinyl group, where this group is optionally substituted by C_1 - C_4 -alkyl, C_1 - C_3 -alkoxy, $NR^{13}R^{14}$ or $CONR^{13}R^{14}$;
- R^{11} denotes hydrogen, C_1 - C_3 -alkyl, optionally substituted by phenyl; (hydroxy)- C_2 - C_3 -alkyl; or C_1 - C_4 -alkanoyl;
- $R^{12} \quad \text{is hydrogen, C_1-C_6-alkyl, $(C_1$-C_3-alkoxy)$-$C_2$-$C_6$-alkyl; (hydroxy)$-C_2-C_6-alkyl; $(R^{13}R^{14}N)$-C_2-C_6-alkyl; $(R^{13}R^{14}NOC)$-C_1-C_6-alkyl; $CONR^{13}R^{14}$; $CSNR^{13}R^{14}$, or $C(NH)NR^{13}R^{14}$; and }$
- R^{13} and R^{14} each independently of one another represent hydrogen; C_1 - C_4 -alkyl; (C_1 - C_3 -alkoxy)- C_2 - C_4 -alkyl; or (hydroxy)- C_2 - C_4 -alkyl,

and their respective salts, hydrates, alkoxides and tautomers.

12. (Amended) The combination preparation as claimed in [any of] claim[s] 1 [to 10], characterized in that the PDE inhibitor (active compound component A) is a cGMP

PDE inhibitor and is [in particular] selected from the group consisting of 2-phenyl-substituted imidazotriazinones of the general formula

in which

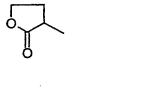
R¹ represents hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms;

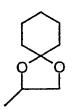
R² represents straight-chain alkyl having up to 4 carbon atoms;

R³ and R⁴ are identical or different and represent hydrogen or represent straight-chain or branched alkenyl or alkoxy having in each case up to 8 carbon atoms, or represent a straight-chain or branched alkyl chain having up to 10 carbon atoms which is optionally interrupted by an oxygen atom and which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of trifluoromethyl, trifluoromethoxy, hydroxyl, halogen, carboxyl, benzyloxycarbonyl, straight-chain or branched alkoxycarbonyl having up to 6 carbon atoms [and/]or by radicals of the formulae -SO₃H, -(A)_a-NR⁷R⁸, -O-CO-NR⁷R⁸, -S(O)_b-R⁹, -P(O)(OR¹⁰)(OR¹¹),

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[and/]or





in which

a and b are identical or different and represent a number 0 or 1,

A represents a radical CO or SO₂,

R⁷, R⁸ and R⁸ are identical or different and represent hydrogen, or represent cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms, a 5- to 6-membered unsaturated, partially unsaturated or saturated optionally benzo-fused heterocycle having up to 3 heteroatoms from the group consisting of S, N and O, where the abovementioned ring systems are optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl, nitro, trifluoromethyl, trifluoromethoxy, carboxyl, halogen, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms or by a group of the formula -(SO₂)_c-NR¹²R¹³,

in which

represents a number 0 or 1,

R¹² and R¹³ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 5 carbon atoms,

or

R⁷, R⁸ and R⁸ represent straight-chain or branched alkoxy having up to 6 carbon atoms, or

represent straight-chain or branched alkyl having up to 8 carbon atoms which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of hydroxyl, halogen, aryl having 6 to 10 carbon atoms, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms, or by a group of the formula -(CO)_d-NR¹⁴R¹⁵,

in which

R¹⁴ and R¹⁵ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

and

d represents a number 0 or 1,

or

R⁷ and R⁸ [and/]or R⁷ and R⁸ together with the nitrogen atom form a 5- to
7-membered saturated heterocycle which may optionally contain a further heteroatom from the group consisting of S and O or a radical of the formula - NR¹⁶,

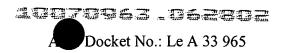
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- R¹⁶ represents hydrogen, aryl having 6 to 10 carbon atoms, benzyl, a 5- to 7-membered aromatic or saturated heterocycle having up to 3 heteroatoms from the group consisting of S, N and O, which heterocycle is optionally substituted by methyl, or represents straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl,
- R⁹ represents aryl having 6 to 10 carbon atoms, or represents straight-chain or branched alkyl having up to 4 carbon atoms,
- R¹⁰ and R¹¹ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

[and/]or the alkyl chain listed above under R³/R⁴ is optionally substituted by cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms or by a 5- to 7-membered partially unsaturated, saturated or unsaturated optionally benzo-fused heterocycle which may contain up to 4 heteroatoms from the group consisting of S, N; O or a radical of the formula -NR¹⁷,

in which

R¹⁷ represents hydrogen, hydroxyl, formyl, trifluoromethyl, straight-chain or branched acyl or alkoxy having in each case up to 4 carbon atoms, or represents straight-chain or branched alkyl having up to 6 carbon atoms which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl and straight-chain or branched alkoxy having up to 6 carbon atoms,



and where aryl and the heterocycle are optionally mono- to polysubstituted by identical or different substituents from the group consisting of nitro, halogen, -SO₃H, straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms, hydroxyl, trifluoromethyl, trifluoromethoxy [and/]or by a radical of the formula - SO₂NR¹⁸R¹⁹,

in which

R¹⁸ and R¹⁹ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,

[and/]or

R³ or R⁴ represent a group of the formula -NR²⁰R²¹,

in which

 R^{20} and R^{21} have the meaning of R^{18} and R^{19} given above and are identical to or different from this meaning,

[and/]or

R³ or R⁴ represent adamantyl, or represent radicals of the formulae

$$H_3C$$
 C_6H_5
 C_6H_5
 C_6H_5

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or represent cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms or represent a 5- to 7-membered partially unsaturated, saturated or unsaturated optionally benzo-fused heterocycle which may contain up to 4 heteroatoms from the group consisting of S, N; O or a radical of the formula - NR²²,

in which

R²² has the meaning of R¹⁶ given above and is identical to or different from this meaning, or represents carboxyl, formyl or straight-chain or branched acyl having up to 5 carbon atoms,

and where cycloalkyl, aryl [and/]or the heterocycle are optionally mono- to polysubstituted by identical or different substituents from the group consisting of halogen, triazolyl, trifluoromethyl, trifluoromethoxy, carboxyl, straight-chain or branched acyl or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, [and/]or by groups of the formulae -SO₃H, -OR²³, (SO₂)_cNR²⁴R²⁵, -P(O)(OR²⁶)(OR²⁷),

- e represents a number 0 or 1,
- R²³ represents a radical of the formula

represents cycloalkyl having 3 to 7 carbon atoms, or represents hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms which is optionally substituted by cycloalkyl having 3 to 7 carbon atoms, benzyloxy, tetrahydropyranyl, tetrahydrofuranyl, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms, carboxyl, benzyloxycarbonyl or phenyl which for its part may be mono- to polysubstituted by identical or different substituents from the group consisting of straight-chain or branched alkoxy having up to 4 carbon atoms, hydroxyl and halogen,

[and/]or alkyl is optionally substituted by radicals of the formulae -CO-NR²⁸R²⁹ or -CO-R³⁰,

in which

R²⁸ and R²⁹ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 8 carbon atoms, or

R²⁸ and R²⁹ together with the nitrogen atom form a 5- to 7-membered saturated heterocycle which may optionally contain a further heteroatom from the group consisting of S and O,

and

R³⁰ represents phenyl or adamantyl,

- R²⁴ and R²⁵ have the meaning of R¹⁸ and R¹⁹ given above and are identical to or different from this meaning,
- R^{26} and R^{27} have the meaning of R^{10} and R^{11} given above and are identical to or different from this meaning

[and/]or cycloalkyl, aryl [and/]or the heterocycle are optionally substituted by straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl, carboxyl, by a 5- to 7-membered heterocycle having up to 3 heteroatoms from the group consisting of S, N and O or by groups of the formula - SO2-R31, P(O)(OR³²)(OR³³) or -NR³⁴R³⁵,

in which

- R³¹ is hydrogen or has the meaning of R⁹ given above and is identical to or different from this meaning,
- R³² and R³³ have the meaning of R¹⁰ and R¹¹ given above and are identical to or different from this meaning,
- R³⁴ and R³⁵ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl or straight-chain or branched alkoxy having up to 4 carbon atoms, or
- R³⁴ and R³⁵ together with the nitrogen atom form a 5- to 6-membered saturated heterocycle which may contain a further heteroatom from the group consisting of S and O or a radical of the formula -NR³⁶,

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R³⁶ represents hydrogen, hydroxyl, straight-chain or branched alkoxycarbonyl having up to 7 carbon atoms or straight-chain or branched alkyl having up to 5 carbon atoms which is optionally substituted by hydroxyl,

or

R³ and R⁴ together with the nitrogen atom form a 5- to 7-membered unsaturated or saturated or partially unsaturated optionally benzo-fused heterocycle which may optionally contain up to 3 heteroatoms from the group consisting of S, N, O or a radical of the formula -NR³⁷,

in which

represents hydrogen, hydroxyl, formyl, trifluoromethyl, straight-chain or branched acyl, alkoxy or alkoxycarbonyl having in each case up to 4 carbon atoms, or represents straight-chain or branched alkyl having up to 6 carbon atoms which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl, trifluoromethyl, carboxyl, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms or by groups of the formula - (D)_f-NR³⁸R³⁹, -CO-(CH₂)_g-O-CO-R⁴⁰, -CO-(CH₂)_h-OR⁴¹ or -P(O)(OR⁴²)(OR⁴³),

in which

g and h are identical or different and represent a number 1, 2, 3 or 4,

and

- f represents a number 0 or 1,
- D represents a group of the formula -CO or -SO₂,
- R³⁸ and R³⁹ are identical or different and have the meaning of R⁷ and R⁸ given above,
- R⁴⁰ represents straight-chain or branched alkyl having up to 6 carbon atoms,
- R⁴¹ represents straight-chain or branched alkyl having up to 6 carbon atoms,
- R⁴² and R⁴³ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

or

R³⁷ represents a radical of the formula - (CO)_i-E,

- i represents a number 0 or 1,
- represents cycloalkyl having 3 to 7 carbon atoms or benzyl, represents aryl having 6 to 10 carbon atoms or a 5- to 6-membered aromatic heterocycle having up to 4 heteroatoms from the group consisting of S, N and O, where the ring systems listed above are optionally mono- to polysubstituted by identical or different substituents from the group consisting of nitro, halogen, -SO₃H,

straight-chain or branched alkoxy having up to 6 carbon atoms, hydroxyl, trifluoromethyl, trifluoromethoxy or by a radical of the formula -SO₂-NR⁴⁴R⁴⁵,

in which

R⁴⁴ and R⁴⁵ have the meaning of R¹⁸ and R¹⁹ given above and are identical to or different from this meaning,

or

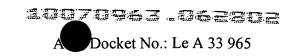
E represents radicals of the formulae

or
$$-N$$

and the heterocycle listed under R³ and R⁴, which is formed together with the nitrogen atom, is optionally mono- to polysubstituted by identical or different substituents, if appropriate also geminally, by hydroxyl, formyl, carboxyl, straight-chain or branched acyl or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro and groups of the formulae -P(O)(OR⁴⁶)(OR⁴⁷),

$$= NR^{48} \text{ or } -(CO)_{j}NR^{49}R^{50},$$

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R⁴⁶ and R⁴⁷ have the meaning of R¹⁰ and R¹¹ given above and are identical to or different from this meaning,

R⁴⁸ is hydroxyl or straight-chain or branched alkoxy having up to 4 carbon atoms,

j is a number 0 or 1,

and

 R^{49} and R^{50} are identical or different and have the meaning of R^{14} and R^{15} given above,

[and/]or the heterocycle listed under R³ and R⁴, which is formed together with the nitrogen atom, is optionally substituted by straight-chain or branched alkyl having up to 6 carbon atoms which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl, halogen, carboxyl, cycloalkyl or cycloalkyloxy having in each case 3 to 8 carbon atoms, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms or by a radical of the formula -SO₃H, -NR⁵¹R⁵² or P(O)OR⁵³OR⁵⁴,

in which

R⁵¹ and R⁵² are identical or different and represent hydrogen, phenyl, carboxyl, benzyl or straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms,

 R^{53} and R^{54} are identical or different and have the meaning of R^{10} and R^{11} given above,

[and/]or the alkyl is optionally substituted by aryl having 6 to 10 carbon atoms which for its part may be mono- to polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, straight-chain or branched alkoxy having up to 6 carbon atoms, or by a group of the formula - NR⁵¹'R⁵²',

in which

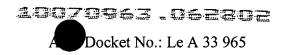
R⁵¹ and R⁵² have the meaning of R⁵¹ and R⁵² given above and are identical to or different from this meaning,

[and/]or the heterocycle listed under R³ and R⁴, which is formed together with the nitrogen atom, is optionally substituted by aryl having 6 to 10 carbon atoms or by a 5- to 7-membered saturated, partially unsaturated or unsaturated heterocycle having up to 3 heteroatoms from the group consisting of S, N and O, if appropriate also attached via an N-function, where the ring systems for their part may be substituted by hydroxyl or by straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms,

or

 R^3 and R^4 together with the nitrogen atom form radicals of the formulae

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or



R⁵ and R⁶ are identical or different and represent hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, hydroxyl or represent straight-chain or branched alkoxy having up to 6 carbon atoms.

and their respective salts, hydrates, alkoxides and tautomers.

- (Amended) The combination preparation as claimed in [any of] claim[s] 1 [to 10], characterized in that the PDE inhibitor (active compound component A) is a cGMP PDE inhibitor and [in particular] is selected from the group consisting of (a) 5-[2-ethoxy-5-(4-methyl-1-piperazinylsulfonyl)-phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H-pyrazolo-[4,3-d]-pyrimidin-7-one [(sildenafil)] and its salts, hydrates, alkoxides and tautomers; and (b) 2-[2-ethoxy-5-(4-ethyl-piperazine-1-sulfonyl)-phenyl]-5-methyl-7-propyl-3H-imidazo[5,1-f]-[1,2,4]-triazin-4-one and its salts, hydrates, alkoxides and tautomers.
- 14. (Amended) The combination preparation as claimed in claim 13, in that the PDE inhibitor (active compound component A) is 5-[2-ethoxy-5-(4-methyl-1-piperazinylsulfonyl)-phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H-pyrazolo-[4,3-d]-pyrimidin-7-one citrate [(sildenafil citrate, ViagraTM)] or 2-[2-ethoxy-5-(4-ethylpiperazine-1-sulfonyl)-phenyl]-5-methyl-7-propyl-3H-imidazo[5,1-f][1,2,4]triazin-4-one hydrochloride trihydrate.
- 15. (Amended) [The use of antilipemics] A method for enhancing the activity of PDE inhibitors [, in particular cGMP PDE inhibitors] by administering an effective amount of an antilipemic.

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- 16. (Amended) [The use as claimed in claim 15 in] A method for the treatment of sexual dysfunction in men and women comprising administering to a host in need thereof an effective amount of the combination preparation of claim 1 [, in particular in the treatment of erectile dysfunction].
- 17. (Amended) The [use as claimed in claim 15 or] method of claim 16, characterized in that the antilipemic and the PDE inhibitor are [used] administered either simultaneously or else successively.
- 18. (Amended) The [use as claimed in any of claims 15 to 17] method of claim 16, characterized in that the antilipemic and the PDE inhibitor are present as a functional unit, in particular in the form of a mixture, a mix or a blend.
- 19. (Amended) The [use as claimed in any of claims 15 to 17] method of claim 16, characterized in that the antilipemic and the PDE inhibitor are present (spatially) separated, in particular as a kit-of-parts.
- 20. (Amended) The [use as claimed in any of claims 15 to 19] method of claim 16, characterized in that the antilipemic is selected from the compounds defined in claims 7 to 10.

Amended Claims (Attorney Docket No. Le A 33 965)

- 1. A combination preparation, comprising as pharmaceutically active ingredients at least one active compound component A and at least one active compound component B, characterized in that the active compound component A is a PDE inhibitor, and the active compound component B is an antilipemic.
- 2. Cancelled.
- 3. Cancelled.
- 4. Cancelled.
- 5. (Amended) The combination preparation as claimed in claim 1, characterized in that the active compound components A and B are present as a functional unit, in particular in the form of a mixture, a mix or a blend.
- 6. (Amended) The combination preparation as claimed in claim 1, characterized in that the active compound components A and B are (spatially) separated, in particular as a kit-of-parts.
- 7. (Amended) The combination preparation as claimed in claim 1, characterized in that the antilipemic (active compound component B) is selected from the group consisting of (a) HMG-CoA-reductase inhibitors; (b) squalene synthase inhibitors; (c) bile acid sequestrants; (d) fibric acid and its derivatives; (e) nicotinic acid and its analogs; (f) ω3-fatty acids.
- 8. (Amended) The combination preparation as claimed in claim 7, characterized in that the antilipemic (active compound component B) is an HMG-CoA-reductase inhibitor.

11. (Amended) The combination preparation as claimed in claim1, characterized in that the PDE inhibitor (active compound component A) is a cGMP PDE inhibitor and is selected from the group consisting of pyrazolopyrimidones of the general formula below

in which

R¹ represents hydrogen; C₁-C₃-alkyl; C₁-C₃-perfluoroalkyl; or C₃-C₅-cycloalkyl;

R² denotes hydrogen; C₁-C₆-alkyl, optionally substituted by C₃-C₆-cycloalkyl; C₁-C₃-perfluoroalkyl; or C₃-C₆-cycloalkyl;

R³ is C₁-C₆-alkyl, optionally substituted by C₃-C₆-cycloalkyl; C₁-C₆-perfluoroalkyl, C₃-C₅-cycloalkyl; C₃-C₆alkenyl; or C₃-C₆-alkinyl;

represents C₁-C₄-alkyl, optionally substituted by OH, NR⁵R⁶, CN, CONR⁵R⁶ or CO₂R⁷; C₂-C₄-alkenyl, optionally substituted by CN, CONR⁵R⁶ or CO₂R⁷; C₂-C₄-alkanoyl, optionally substituted by NR⁵R⁶; (hydroxy)-C₂-C₄-alkyl, optionally substituted by NR⁵R⁶, (C₂-C₃-alkoxy)-C₁-C₂-alkyl, optionally substituted by OH or NR⁵R⁶, CO₂R⁷; halogen; NR⁵R⁶, NHSO₂NR⁵R⁶; NHSO₂R⁸; SO₂NR⁹R¹⁰; or phenyl, pyridyl, pyrimidinyl, imidazolyl, oxazolyl, thiazolyl, thienyl or triazolyl, each of which is optionally substituted by methyl;

R⁵ and R⁶ each independently of one another denote hydrogen or C₁-C₄-alkyl; or together with the nitrogen atom to which they are attached form a pyrrolidinyl, piperidino, morpholino, 4-N(R¹¹)-piperazinyl or imidazolyl group, where this group is optionally substituted by methyl or OH;



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- R⁷ is hydrogen or C₁-C₄-alkyl;
- R⁸ represents C₁-C₃-alkyl, optionally substituted by NR⁵R⁶;
- R^9 and R^{10} together with the nitrogen atom to which they are attached form a pyrrolidinyl, piperidino, morpholino, 4-N(R^{12})-piperazinyl group, where this group is optionally substituted by C_1 - C_4 -alkyl, C_1 - C_3 -alkoxy, $NR^{13}R^{14}$ or $CONR^{13}R^{14}$;
- R^{11} denotes hydrogen, C_1 - C_3 -alkyl, optionally substituted by phenyl; (hydroxy)- C_2 - C_3 -alkyl; or C_1 - C_4 -alkanoyl;
- $R^{12} \quad \text{is hydrogen, C_1-C_6-alkyl, $(C_1$-C_3-alkoxy)$-$C_2$-$C_6$-alkyl; (hydroxy)$-C_2-C_6-alkyl; $(R^{13}R^{14}N)$-C_2-C_6-alkyl; $(R^{13}R^{14}NOC)$-C_1-C_6-alkyl; $CONR^{13}R^{14}$; $CSNR^{13}R^{14}$, or $C(NH)NR^{13}R^{14}$; and }$
- R¹³ and R¹⁴ each independently of one another represent hydrogen; C₁-C₄-alkyl; (C₁-C₃-alkoxy)-C₂-C₄-alkyl; or (hydroxy)-C₂-C₄-alkyl,

and their respective salts, hydrates, alkoxides and tautomers.

12. (Amended) The combination preparation as claimed in claim 1, characterized in that the PDE inhibitor (active compound component A) is a cGMP PDE inhibitor and is selected from the group consisting of 2-phenyl-substituted imidazotriazinones of the general formula

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in which

R¹ represents hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms;

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- R² represents straight-chain alkyl having up to 4 carbon atoms;
- R³ and R⁴ are identical or different and represent hydrogen or represent straight-chain or branched alkenyl or alkoxy having in each case up to 8 carbon atoms, or represent a straight-chain or branched alkyl chain having up to 10 carbon atoms which is optionally interrupted by an oxygen atom and which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of trifluoromethyl, trifluoromethoxy, hydroxyl, halogen, carboxyl, benzyloxycarbonyl, straight-chain or branched alkoxycarbonyl having up to 6 carbon atoms or by radicals of the formulae -SO₃H, -(A)_a-NR⁷R⁸, -O-CO-NR⁷'R⁸', -S(O)_b-R⁹, -P(O)(OR¹⁰)(OR¹¹),



or

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a and b are identical or different and represent a number 0 or 1,

A represents a radical CO or SO₂,

R⁷, R⁸ and R⁸ are identical or different and represent hydrogen, or represent cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms, a 5- to 6-membered unsaturated, partially unsaturated or saturated optionally benzo-fused heterocycle having up to 3 heteroatoms from the group consisting of S, N and O, where the abovementioned ring systems are optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl, nitro, trifluoromethyl, trifluoromethoxy, carboxyl, halogen, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms or by a group of the formula -(SO₂)_c-NR¹²R¹³,

in which

c represents a number 0 or 1,

R¹² and R¹³ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 5 carbon atoms,

or

R⁷, R⁸ and R⁸ represent straight-chain or branched alkoxy having up to 6 carbon atoms, or represent straight-chain or branched alkyl having up to 8 carbon atoms which is optionally mono- or polysubstituted by identical or different substituents from the group consisting of hydroxyl, halogen, aryl having 6 to 10 carbon

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atoms, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms, or by a group of the formula -(CO)_d-NR¹⁴R¹⁵,

in which

R¹⁴ and R¹⁵ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

and

d represents a number 0 or 1,

or

R⁷ and R⁸ or R⁷ and R⁸ together with the nitrogen atom form a 5- to 7-membered saturated heterocycle which may optionally contain a further heteroatom from the group consisting of S and O or a radical of the formula -NR¹⁶,

in which

R¹⁶ represents hydrogen, aryl having 6 to 10 carbon atoms, benzyl, a 5- to 7-membered aromatic or saturated heterocycle having up to 3 heteroatoms from the group consisting of S, N and O, which heterocycle is optionally substituted by methyl, or represents straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl,

R⁹ represents aryl having 6 to 10 carbon atoms, or represents straight-chain or branched alkyl having up to 4 carbon atoms,

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R¹⁰ and R¹¹ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

or the alkyl chain listed above under R³/R⁴ is optionally substituted by cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms or by a 5- to 7-membered partially unsaturated, saturated or unsaturated optionally benzo-fused heterocycle which may contain up to 4 heteroatoms from the group consisting of S, N; O or a radical of the formula -NR¹⁷,

in which

R¹⁷

represents hydrogen, hydroxyl, formyl, trifluoromethyl, straight-chain or branched acyl or alkoxy having in each case up to 4 carbon atoms, or represents straight-chain or branched alkyl having up to 6 carbon atoms which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl and straight-chain or branched alkoxy having up to 6 carbon atoms,

and where aryl and the heterocycle are optionally mono- to polysubstituted by identical or different substituents from the group consisting of nitro, halogen, $-SO_3H$, straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms, hydroxyl, trifluoromethyl, trifluoromethoxy or by a radical of the formula - $SO_2NR^{18}R^{19}$,

in which

R¹⁸ and R¹⁹ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms,

R³ or R⁴ represent a group of the formula -NR²⁰R²¹,

in which

R²⁰ and R²¹ have the meaning of R¹⁸ and R¹⁹ given above and are identical to or different from this meaning,

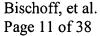
or

R³ or R⁴ represent adamantyl, or represent radicals of the formulae



$$H_3C$$
 C_6H_5
 C_6

or represent cycloalkyl having 3 to 8 carbon atoms, aryl having 6 to 10 carbon atoms or represent a 5- to 7-membered partially unsaturated, saturated or unsaturated optionally benzo-fused heterocycle which may contain up to 4 heteroatoms from the group consisting of S, N; O or a radical of the formula - NR²²,





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R²² has the meaning of R¹⁶ given above and is identical to or different from this meaning, or

represents carboxyl, formyl or straight-chain or branched acyl having up to 5 carbon atoms,

and where cycloalkyl, aryl or the heterocycle are optionally mono- to polysubstituted by identical or different substituents from the group consisting of halogen, triazolyl, trifluoromethyl, trifluoromethoxy, carboxyl, straight-chain or branched acyl or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro, or by groups of the formulae -SO₃H, -OR²³, (SO₂)_eNR²⁴R²⁵, -P(O)(OR²⁶)(OR²⁷),

in which

e represents a number 0 or 1,

R²³ represents a radical of the formula

O O

represents cycloalkyl having 3 to 7 carbon atoms, or

represents hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms which is optionally substituted by cycloalkyl having 3 to 7 carbon atoms, benzyloxy, tetrahydropyranyl, tetrahydrofuranyl, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms, carboxyl, benzyloxycarbonyl or phenyl which for its part may be monoto polysubstituted by identical or different substituents from the group consisting of straight-chain or branched alkoxy having up to 4 carbon atoms, hydroxyl and halogen,

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or alkyl is optionally substituted by radicals of the formulae -CO-NR 28 R 29 or -CO-R 30 ,

in which

R²⁸ and R²⁹ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 8 carbon atoms, or

R²⁸ and R²⁹ together with the nitrogen atom form a 5- to 7-membered saturated heterocycle which may optionally contain a further heteroatom from the group consisting of S and O,

and

R³⁰ represents phenyl or adamantyl,

R²⁴ and R²⁵ have the meaning of R¹⁸ and R¹⁹ given above and are identical to or different from this meaning,

 R^{26} and R^{27} have the meaning of R^{10} and R^{11} given above and are identical to or different from this meaning

or cycloalkyl, aryl or the heterocycle are optionally substituted by straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl, carboxyl, by a 5- to 7-membered heterocycle having up to 3 heteroatoms from the group consisting of S, N and O or by groups of the formula -SO2-R31, $P(O)(OR^{32})(OR^{33})$ or $-NR^{34}R^{35}$,

in which

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- R³¹ is hydrogen or has the meaning of R⁹ given above and is identical to or different from this meaning,
- R³² and R³³ have the meaning of R¹⁰ and R¹¹ given above and are identical to or different from this meaning,
- R³⁴ and R³⁵ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 6 carbon atoms which is optionally substituted by hydroxyl or straight-chain or branched alkoxy having up to 4 carbon atoms, or
- R³⁴ and R³⁵ together with the nitrogen atom form a 5- to 6-membered saturated heterocycle which may contain a further heteroatom from the group consisting of S and O or a radical of the formula -NR³⁶.

in which

R³⁶ represents hydrogen, hydroxyl, straight-chain or branched alkoxycarbonyl having up to 7 carbon atoms or straight-chain or branched alkyl having up to 5 carbon atoms which is optionally substituted by hydroxyl,

or

R³ and R⁴ together with the nitrogen atom form a 5- to 7-membered unsaturated or saturated or partially unsaturated optionally benzo-fused heterocycle which may optionally contain up to 3 heteroatoms from the group consisting of S, N, O or a radical of the formula -NR³⁷,

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R³⁷ represents hydrogen, hydroxyl, formyl, trifluoromethyl, straight-chain or branched acyl, alkoxy or alkoxycarbonyl having in each case up to 4 carbon atoms,

or represents straight-chain or branched alkyl having up to 6 carbon atoms which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl, trifluoromethyl, carboxyl, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms or by groups of the formula - (D)_f-NR³⁸R³⁹, -CO-(CH₂)_g-O-CO-R⁴⁰, -CO-(CH₂)_h-OR⁴¹ or -P(O)(OR⁴²)(OR⁴³),

in which

g and h are identical or different and represent a number 1, 2, 3 or 4,

and

- f represents a number 0 or 1,
- D represents a group of the formula -CO or -SO₂,
- R^{38} and R^{39} are identical or different and have the meaning of R^7 and R^8 given above,
- R⁴⁰ represents straight-chain or branched alkyl having up to 6 carbon atoms,
- R⁴¹ represents straight-chain or branched alkyl having up to 6 carbon atoms,

Cont.

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R⁴² and R⁴³ are identical or different and represent hydrogen or straight-chain or branched alkyl having up to 4 carbon atoms,

or

R³⁷ represents a radical of the formula - (CO)_i-E,

in which

- i represents a number 0 or 1,
- represents cycloalkyl having 3 to 7 carbon atoms or benzyl, represents aryl having 6 to 10 carbon atoms or a 5- to 6-membered aromatic heterocycle having up to 4 heteroatoms from the group consisting of S, N and O, where the ring systems listed above are optionally mono- to polysubstituted by identical or different substituents from the group consisting of nitro, halogen, -SO₃H, straight-chain or branched alkoxy having up to 6 carbon atoms, hydroxyl, trifluoromethyl, trifluoromethoxy or by a radical of the formula -SO₂-NR⁴⁴R⁴⁵,

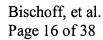
in which

R⁴⁴ and R⁴⁵ have the meaning of R¹⁸ and R¹⁹ given above and are identical to or different from this meaning,

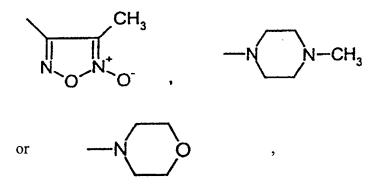
or

E represents radicals of the formulae

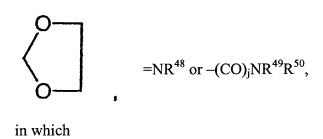
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and the heterocycle listed under R³ and R⁴, which is formed together with the nitrogen atom, is optionally mono- to polysubstituted by identical or different substituents, if appropriate also geminally, by hydroxyl, formyl, carboxyl, straight-chain or branched acyl or alkoxycarbonyl having in each case up to 6 carbon atoms, nitro and groups of the formulae -P(O)(OR⁴⁶)(OR⁴⁷),



 R^{46} and R^{47} have the meaning of R^{10} and R^{11} given above and are identical to or different from this meaning,

R⁴⁸ is hydroxyl or straight-chain or branched alkoxy having up to 4 carbon atoms,

j is a number 0 or 1,

and

R⁴⁹ and R⁵⁰ are identical or different and have the meaning of R¹⁴ and R¹⁵ given above,

or the heterocycle listed under R³ and R⁴, which is formed together with the nitrogen atom, is optionally substituted by straight-chain or branched alkyl having up to 6 carbon atoms which is optionally mono- to polysubstituted by identical or different substituents from the group consisting of hydroxyl, halogen, carboxyl, cycloalkyl or cycloalkyloxy having in each case 3 to 8 carbon atoms, straight-chain or branched alkoxy or alkoxycarbonyl having in each case up to 6 carbon atoms or by a radical of the formula -SO₃H, -NR⁵¹R⁵² or P(O)OR⁵³OR⁵⁴,

in which

R⁵¹ and R⁵² are identical or different and represent hydrogen, phenyl, carboxyl, benzyl or straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms,

 R^{53} and R^{54} are identical or different and have the meaning of R^{10} and R^{11} given above,

or the alkyl is optionally substituted by aryl having 6 to 10 carbon atoms which for its part may be mono- to polysubstituted by identical or different substituents from the group consisting of halogen, hydroxyl, straight-chain or branched alkoxy having up to 6 carbon atoms, or by a group of the formula - NR⁵¹'R⁵²',

in which

R⁵¹ and R⁵² have the meaning of R⁵¹ and R⁵² given above and are identical to or different from this meaning,

or the heterocycle listed under R³ and R⁴, which is formed together with the nitrogen atom, is optionally substituted by aryl having 6 to 10 carbon atoms or

CONT

by a 5- to 7-membered saturated, partially unsaturated or unsaturated heterocycle having up to 3 heteroatoms from the group consisting of S, N and O, if appropriate also attached via an N-function, where the ring systems for their part may be substituted by hydroxyl or by straight-chain or branched alkyl or alkoxy having in each case up to 6 carbon atoms,

or

R³ and R⁴ together with the nitrogen atom form radicals of the formulae

or
$$H_3C$$
 CH_3 H_3C CH_3

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R⁵ and R⁶ are identical or different and represent hydrogen, straight-chain or branched alkyl having up to 6 carbon atoms, hydroxyl or represent straight-chain or branched alkoxy having up to 6 carbon atoms.

and their respective salts, hydrates, alkoxides and tautomers.

13. (Amended) The combination preparation as claimed in claim 1, characterized in that the PDE inhibitor (active compound component A) is a cGMP PDE inhibitor and is selected from the group consisting of (a) 5-[2-ethoxy-5-(4-methyl-1-piperazinylsulfonyl)-phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H-pyrazolo-[4,3-d]-pyrimidin-7-one and its salts, hydrates, alkoxides and tautomers; and (b) 2-[2-ethoxy-

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5-(4-ethyl-piperazine-1-sulfonyl)-phenyl]-5-methyl-7-propyl-3H-imidazo[5,1-f]-[1,2,4]-triazin-4-one and its salts, hydrates, alkoxides and tautomers.

- 14. (Amended) The combination preparation as claimed in claim 13, in that the PDE inhibitor (active compound component A) is 5-[2-ethoxy-5-(4-methyl-1-piperazinylsulfonyl)-phenyl]-1-methyl-3-n-propyl-1,6-dihydro-7H-pyrazolo-[4,3-d]-pyrimidin-7-one citrate or 2-[2-ethoxy-5-(4-ethylpiperazine-1-sulfonyl)-phenyl]-5-methyl-7-propyl-3H-imidazo[5,1-f][1,2,4]triazin-4-one hydrochloride trihydrate.
- 15. (Amended) A method for enhancing the activity of PDE inhibitors by administering an effective amount of an antilipemic.
- (Amended) A method for the treatment of sexual dysfunction in men and women
 comprising administering to a host in need thereof an effective amount of the
 combination preparation of claim 1.
- 17. (Amended) The method of claim 16, characterized in that the antilipemic and the PDE inhibitor are administered either simultaneously or else successively.
- 18. (Amended) The method of claim 16, characterized in that the antilipemic and the PDE inhibitor are present as a functional unit, in particular in the form of a mixture, a mix or a blend.
- 19. (Amended) The method of claim 16, characterized in that the antilipemic and the PDE inhibitor are present (spatially) separated, in particular as a kit-of-parts.
- 20. (Amended) The method of claim 16, characterized in that the antilipemic is selected from the compounds defined in claims 7 to 10.

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- 21. (Amended) The method of claim 16, characterized in that the PDE inhibitor is selected from the compounds defined in claims 11 to 14.
- 22. (New) The combination preparation of claim 1 characterized in that the PDE inhibitor is a cGMP PDE inhibitor.
- 23. (New) The combination preparation of claim 8, characterized in that the HMG-CoA-reductase inhibitor is a statin.
- 24. (New) The combination preparation of claim 23, characterized in that the statin is selected from the group consisting of atorvastatin, cerivastatin, fluvastatin, lovastatin, pravastatin, itavastatin, simvastatin and (+)-(3R,5S)-bis-(7-(4-(4-fluorophenyl)-6-isopropyl-2-(N-methyl-N-methanesulfonylamino)-pyrimidin-5-yl)-3,5-dihydroxy-6(E)-heptenoic acid, and their respective salts, hydrates, alkoxides, esters and tautomers.
- 25. (New) The method of claim 15, characterized in that the PDE inhibitor is a cGMP PDE inhibitor.
- 26. (New) The method of claim 16, characterized in that the sexual dysfunction is erectile dysfunction.